Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1.   (currently amended) A method for enhancing a digital image comprising:

providing a digital original image ~~comprised of~~ comprising a plurality of

pixels, wherein each pixel includes an original value corresponding to a characteristic of the

image;

calculating a dynamic image mask value for each pixel by averaging the

original value of a pixel with the original values of the pixels proximate that pixel having

original values lower than a threshold sharpness; and

applying the dynamic image mask value to the original value for each

corresponding pixel using a mathematical function to produce an enhanced image.

Claim 2.   (original) The method of Claim 1, wherein providing a digital original image

comprises capturing a digital original image using a digital capture device.

Claim 3.   (original) The method of Claim 1, wherein providing a digital original image

comprises capturing a digital original image using an imaging system.

Claim 4.   (original) The method of Claim 1, wherein the original value corresponding to

a characteristic of the image comprises an intensity value corresponding to a color.

Claim 5.   (original) The method of Claim 1, wherein the original value corresponding to

a characteristic of the image comprises an intensity value corresponding to range of

frequencies.

Claim 6.   (original) The method of Claim 1, wherein averaging the original value of a

pixel with only the original values of the pixels proximate that pixel having original values

less than a sharpness threshold comprises averaging the original value of a pixel with only the weighted original values of the pixels proximate that pixel having original values less than a sharpness threshold.

Claim 7.   (original) The method of Claim 6, wherein the weighted original values are determined according to the following formula:

$$w_N = \left(1 - \left|\frac{pixelN - centerpixel}{Gain}\right|\right),$$

wherein pixelN is the value of the pixel being weighed, center pixel is the value of a central pixel, and wherein Gain is the threshold sharpness.

Claim 8.   (original) The method of Claim 1, wherein the original values used to calculate the difference less than the sharpness threshold correspond to different characteristics than the original values used in averaging.

Claim 9.   (original) The method of Claim 1, wherein calculating a dynamic image mask value includes performing a pyramidal decomposition on the original image.

Claim 10.   (original) The method of Claim 1, wherein the mathematical function comprises division.

Claim 11.   (currently amended) A ~~The~~ method ~~of Claim 1~~ for enhancing a digital image comprising:

providing a digital original image comprising a plurality of pixels, wherein each pixel includes an original value corresponding to a characteristic of the image;

calculating a dynamic image mask value for each pixel by averaging the original value of a pixel with the original values of the pixels proximate that pixel having original values lower than a threshold sharpness; and

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applying the dynamic image mask value to the original value for each

corresponding pixel using a mathematical function to produce an enhanced image, wherein

the mathematical function comprises:

$$OUT = \frac{IN}{\frac{3}{4} MASK + \frac{1}{4}},$$

wherein OUT is the value of the pixel being calculated in the enhanced

scanned image, IN is the value of the relative pixel in the original image, and MASK is the

value of the relative pixel in the dynamic image mask.

Claim 12.   (original) The method of Claim 1, further comprising performing histogram

leveling to the enhanced scanned image.

Claim 13.   (original) The method of Claim 1, wherein the enhanced scanned image

includes an image contrast and a grayscale contrast.

Claim 14.   (original) The method of Claim 13, wherein the image contrast and the

grayscale contrast can be controlled independently of each other.

Claim 15.   (original) The method of Claim 1, wherein the dynamic image mask value

may be proportionally varied by a user.

Claim 16.   (original) A system comprising:

a sensor system operable to produce electronic signals corresponding to

certain characteristics of a subject;

a processor operable to receive the electronic signals and produce image

values for each pixel; and

a memory media having software stored thereon, wherein the software is

operable to:

calculate a dynamic image mask value for each pixel by averaging the

image value of a pixel with the image values of the pixels proximate that pixel

having image values lower than a threshold sharpness; and

apply the dynamic image mask value to the image value for each

corresponding pixel using a mathematical function to produce an enhanced

image.

Claim 17.   (original) The system of Claim 16, wherein the sensor system operates to

measure light from the subject.

Claim 18.   (original) The system of Claim 16, wherein the sensor system operates to

measure a magnetic resonance pulse.

Claim 19.   (original) The system of Claim 16, further comprising a printer operable to

print the enhanced image.

Claim 20.   (original) The system of Claim 19, wherein the printer comprises a

photographic printer.

Claim 21.   (original) The system of Claim 16, further comprising a digital output device

operable to store the enhanced image.

Clam 22.   (original) The system of Claim 16, wherein the system comprises a digital

device within the group of a digital camera and a video camera.

Claim 23.   (original) The system of Claim 16, wherein the system comprises an imaging

system within the group of a magnetic resonance imaging system and a radar system.

Claim 24.   (original) The system of Claim 16, wherein the software is loaded into the

image capturing device.

Claim 25.   (original) The system of Claim 16, wherein the system comprises a printer device.

Claim 26.   (currently amended) A software tangibly embodied in a computer readable medium, ~~said~~ the software operable to produce an enhanced image by implementing a method comprising:

generating a dynamic image mask from a digital original image, the dynamic image mask and the original image each comprising a plurality of pixels having varying values, wherein the values of the plurality of dynamic image mask pixels are set to form sharper edges corresponding to areas of more rapidly changing pixel values in the original image and less sharp regions corresponding to areas of less rapidly changing pixel values in the original image; and

combining the dynamic image mask with the original image to produce the enhanced image.

Claim 27.   (original) The software of Claim 26, wherein:

the original image includes an amount of image detail encoded in a physically reproducible dynamic range; and

wherein the enhanced image includes an increased amount of detail encoded in the physically reproducible dynamic range.

Claim 28.   (original) The software of Claim 26, wherein combining the dynamic image mask with the original image is performed through mathematical manipulation.

Claim 29.   (original) The software of Claim 28, wherein the mathematical manipulation includes division.

Claim 30.   (currently amended) A ~~The~~ software ~~of Claim 26~~ tangibly embodied in a

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computer readable medium, the software operable to produce an enhanced image by

implementing a method comprising:

generating a dynamic image mask from a digital original image, the dynamic

image mask and the original image each comprising a plurality of pixels having varying

values, wherein the values of the plurality of dynamic image mask pixels are set to form

sharper edges corresponding to areas of more rapidly changing pixel values in the original

image and less sharp regions corresponding to areas of less rapidly changing pixel values in

the original image, wherein the pixels in the dynamic image mask are generated according to

the equation:

$$OUT = \frac{IN}{\frac{3}{4}MASK + \frac{1}{4}},$$

wherein OUT is the value of the pixel being calculated in the enhanced image, IN is the value

of the relative pixel in the original image, and MASK is the value of the relative pixel in the

dynamic image mask; and

combining the dynamic image mask with the original image to produce the

enhanced image.

Claim 31.   (original) The software of Claim 26, further comprising histogram leveling.

Claim 32.   (original) The software of Claim 26, wherein the value of a pixel in the

dynamic image mask is generated by averaging the value of a central pixel corresponding to

the pixel in the original image with weighted values of a plurality of neighboring pixels in the

original image.

Claim 33.   (original) The software of Claim 32, wherein the weighting of the plurality of

neighboring pixels is dependant on a proximity of the neighboring pixels to the central pixel

and a contrast of the plurality of neighboring pixels to the central pixel.

Claim 34.   (original) The software of Claim 26, wherein the weight of pixels in the dynamic image mask is determined according to the following formula:

$$w_N = \left(1 - \left|\frac{pixelN - centerpixel}{Gain}\right|\right),$$

wherein pixelN is the value of the pixel being weighted, center pixel is the value of the central pixel, and wherein Gain is a threshold contrast value for determining a sharp edge.

Claim 35.   (currently amended) The software of Claim 26, wherein the value of a pixel in the dynamic image mask is generated based on a relationship of ~~the~~ a value of a different characteristic.

Claim 36.   (original) The software of Claim 26, wherein the generating the dynamic image mask includes performing a pyramidal decomposition on the original image.

Claim 37.   (original) The software of Claim 26, wherein the software is resident on a computer.

Claim 38.   (original) The software of Claim 26, wherein the software is resident on a digital camera.

Claim 39.   (currently amended) A system comprising:

an image sensor to convert light reflected from an image into information representative of the image;

a processor;

memory operably coupled to ~~said~~ the processor; and

a program of instructions capable of being stored in ~~said~~ the memory and

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executed by ~~said~~ the processor, ~~said~~ the program of instructions to manipulate ~~said~~ the

processor to:

> obtain a dynamic image mask, the dynamic image mask and the
>
> information representative of the image each including a plurality of pixels
>
> having varying values, wherein the values of the plurality of dynamic image
>
> mask pixels are set to form sharper edges corresponding to areas of more
>
> rapidly changing pixel values in the original image and less sharp regions
>
> corresponding to areas of less rapidly changing pixel values in the original
>
> image; and

> combine the image mask with the information representative of the
>
> image to obtain a masked image.

Claim 40.   (currently amended) The system of Claim 39, further including a color

decoder, operably connected to ~~said~~ the image sensor, to generate color information from the

information representative of the image.

Claim 41.   (currently amended) The system of Claim 40, wherein ~~said~~ the program of

instructions are executed on an output of ~~said~~ the image sensor, and where a result of ~~said~~ the

executed program of instructions are input to ~~said~~ the color decoder.

Claim 42.   (currently amended) The system of Claim 39, further including a color

management system, operably connected to ~~said~~ the color decoder, to process ~~said~~ the color

information.

Claim 43.   (currently amended) The system of Claim 42, wherein ~~said~~ the program of

instructions are executed on an output of ~~said~~ the color decoder, and where a result of ~~said~~ the

executed program of instructions are input to ~~said~~ the color management system.

Claim 44.   (currently amended) The system of Claim 43, wherein ~~said~~ the output of ~~said~~ the color decoder is information representative of a red portion of the image, a green portion of the image, and a blue portion of the image.

Claim 45.   (currently amended) The system of Claim 42, further including a storage system, operably connected to ~~said~~ the color management system, to store the color information.

Claim 46.   (currently amended) The system of Claim 45, wherein ~~said~~ the program of instructions are executed on an output of ~~said~~ the color management system, and where a result of ~~said~~ the executed program of instructions are input to ~~said~~ the storage system.

Claim 47.   (original) The system of Claim 39, further including a display, operable to display a representation of the information representative of the image.

Claim 48.   (currently amended) The system of Claim 47, wherein ~~said~~ the program of instructions are executed on an output of a color management system, and where a result of ~~said~~ the executed program of instructions are input to ~~said~~ the display.